CMPSC 480
Software Innovation I
Fall 2018
Syllabus

Course Instructor

Dr. Janyl Jumadinova
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Instructor’s Office Hours

- Monday, Friday: 10:00 am - 12:00 pm (15 minute time slots)
- Tuesday: 2:30 pm - 4:00 pm (10 minute time slots)
- Wednesday: 10:00 am - 11:00 am (10 minute time slots)

To schedule a meeting with me during the office hours, please go to https://cs.allegheny.edu/sites/jjumadinova/schedule, click on the “book an appointment” link and select the available date and time of your choice. You can schedule an appointment outside of my office hours via course’s Slack channel or email.

Course Meeting Schedule

Discussion and Practical Work: Thursday, 1:30 pm - 2:20 pm

Course Resources

Course Web page: https://cs.allegheny.edu/sites/jjumadinova/teaching/480/
You can find the most up-to-date schedule of the course and the required readings on the course’s page.

GitHub Organization: https://github.com/Allegheny-Computer-Science-480-F2018
GitHub will be used for sharing course materials by the instructor and GitHub Classroom will be used for releasing assignments and for submitting assignments by the students.

Slack channel: https://cs480f2018.slack.com/
Slack will be used for discussion and communication outside of the classroom.

Academic Bulletin Course Description

An introduction to the technical and communication skills needed to design, implement, and publicly release innovative software. In addition to establishing connections with professionals in the software field, students refine their writing abilities as they participate in online technical communities. During a weekly practical session, students

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use state-of-the-art tools to complete well-documented software that is useful to external collaborators, describing their systems through oral presentations and written documents featured on a web site.

Credits: 2
Prerequisite: CMPSC 101.
Distribution Requirements: none.

Course Objectives

David J. Deming’s recent report for the National Bureau of Economic Research (NBER) points out that employment and wage growth is strongest for careers that required the unusual combination of both technical and social skills. Moreover, computer science students who are looking for internships, their first job, or a position in graduate school, must have a portfolio of technical work that documents their ability to collaboratively develop useful software.

Students in CMPSC 480 will learn how to effectively participate in well-known online technical and professional communities such as GitHub and StackOverflow. In addition to expanding their professional presence online, students will learn how to build and utilize professional networks in the technical field. Students will also design, implement, and publicly release at least one software tool. Leveraging a mobile-ready website that they create for this course, students will share written documents and oral presentations that promote their innovative software.

Learning Objectives

At the completion of this class, all students must have a mobile ready website featuring their professional reflections and experiences. Students should be comfortable finding needed information from, participating in, and contributing to online technical communities. In this class students are also expected to start building personal interactions with the industry experts. Students must release at least one software tool that conforms to the industry standards, conventions and best practices on styling, coding and ethics. Finally, students should be comfortable with formal and informal knowledge sharing activities, such as giving technical presentations and leading code reviews.

Reading

There is no required textbook for this course. However, articles from various online sources will be assigned for reading each week.

Class Policies

Grading

The grade that a student receives in this class will be based on the following categories. All percentages are approximate and it is possible for the assigned percentages to be changed during the academic semester, if a need arises to do so.

<table>
<thead>
<tr>
<th>Class Participation</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>50%</td>
</tr>
<tr>
<td>Final Project</td>
<td>30%</td>
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These grading categories have the following definitions:

- **Class Participation**: All students are required to actively participate during all of the class sessions. Your participation will take forms of working on assignments in class (individually and in teams), answering questions about the required reading assignments, contributing to class discussions and asking constructive and relevant questions.

- **Assignments**: Each week students will have an assignment to complete, which they will start working on in class. Assignments invite students to enhance their professional portfolio development skills for the field of computer science to best ensure that students are prepared for the Junior seminar and Senior project courses, internships, first jobs, and graduate schools.

- **Final Project**: This project will present you with an opportunity to enhance and publicly release an innovative software tool. The details for the final project will be given shortly after the fall break.

**Assignment Submission**

All assignments will have a stated due date and are to be turned in electronically on that due date. You must follow proper procedures for submitting your completed programs in order for them to be graded. You will be given instructions on how to do that with your first assignment.

Late assignments will be accepted for up to one week past the assigned due date with a 15% penalty. All of the late assignments must be submitted at the beginning of the session that is scheduled one week after the due date. Unless special arrangements are made with the course instructor, no assignments will be accepted after the late deadline. For any assignment completed in a group, students must also turn in a one-page retrospective that describes each group member’s contribution to the submitted deliverables and the dynamics of their teamwork.

**Attendance**

It is mandatory for all students to attend all of the class sessions. If you will not be able to attend a session, then please see me at least one week in advance to describe your situation. In case you missed a class because of an emergency, please notify me as soon as possible. Students who miss more than five unexcused sessions will have their final grade in the course reduced by one letter grade. Frequent or prolonged absences due to illness should be documented by the student’s doctor, the Health Center, the Dean of Students’ Office, or the office of Student Disability Services. If you need to miss class due to a religious observance, please speak to me in advance to make appropriate arrangements.

**Seeking Assistance**

Students who are struggling to understand the knowledge and skills developed in a class session are encouraged to seek assistance from the course instructor right away. Students who need the course instructor’s assistance should schedule a meeting through her Web site.
A Note on extenuating circumstances

If you should find yourself in difficult circumstances that significantly interfere with your ability to prepare for this class and to complete assignments, please inform me immediately so that we can work something out together! Do not wait until the last day of class to ask for exceptions to what is stated in this syllabus. In such a situation, you may also find it helpful to contact one of the available resources on campus:

The Maytum Learning Commons, Library/Academic Commons, 814-332-2898
Allegheny College Counseling Center, Reis Hall, 814 -332-4368
Winslow Health Center, Schultz Hall , 814-332-4355
Allegheny College Chaplain, Reis Hall, 814-332-2800

Special Needs and Disability

Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disability Services at (814) 332-2898. Disability Services is part of the Learning Commons and is located in Pelletier Library. Please do this as soon as possible to ensure that approved accommodations are implemented in a timely fashion.

A Note About Public Presence

Students who require or prefer to keep their online presence non-existent or limited should make arrangements with the instructor for an alternate submission of their assignments.

Honor Code

All students enrolled at Allegheny College are bound by the Honor Code. It is expected that your behaviour will reflect that commitment. To this end, we expect that you will adhere to the following Department Policy:

Department of Computer Science Honor Code Policy

It is recognized that an important part of the learning process in any course, and particularly in computer science, derives from thoughtful discussions with teachers, student assistants, and fellow students. Such dialogue is encouraged. However, it is necessary to distinguish carefully between the student who discusses the principles underlying a problem with others, and the student who produces assignments that are identical to, or merely variations on, someone else’s work. It will therefore be understood that all assignments submitted to faculty of the Department of Computer Science are to be the original work of the student submitting the assignment, and should be signed in accordance with the provisions of the Honor Code. Appropriate action will be taken when assignments give evidence that they were derived from the work of others.

You are encouraged to periodically review the specifics of the Honor Code as stated in the College Catalogue and The Compass.

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